NAVY TRAINING SYSTEM PLAN

FOR THE

AN/ALE-47 COUNTERMEASURES DISPENSING SYSTEM

N88-NTSP-A-50-9001B/A

January 2003

AN/ALE-47 COUNTERMEASURES DISPENSING SYSTEM

EXECUTIVE SUMMARY

This update to the AN/ALE-47 Countermeasure Dispensing System (CMDS) Navy Training System Plan (NTSP) addresses continued system fleet introduction, including retrofit program requirements, additional ordnance training requirements, and the Calendar Year (CY) 2000 Electronic Warfare (EW) Suite program. The AN/ALE-47 CMDS is in the Operations and Support phase of the Defense Acquisition System

The AN/ALE-47 CMDS provides an integrated, threat-adaptive, reprogrammable, computer controlled capability for dispensing expendable decoys. These include chaff, flares, Radio Frequency (RF) expendables and others. The AN/ALE-47 system enhances aircraft survivability in sophisticated threat environments. The system is designed to provide the capability of automatic or pilot commanded response, and works alone or in coordination with other countermeasures defensive systems to defeat Air Interceptor (AI), Anti-Aircraft Artillery (AAA), and Surface-to-Air Missiles (SAMs).

The AN/ALE-47 CMDS replaces the aging AN/ALE-39 CMDS on-board a variety of aircraft. This replacement is being accomplished on a one-for-one basis with no impacts to existing aircrew and organizational level manning requirements. Intermediate level maintenance for the AN/ALE-47 is now encompassed within the Consolidated Automated Support System (CASS) program. Ordnance manpower levels required to support the AN/ALE-47 CMDS are met through the overall host platform requirements. Ordnance training is conducted via platform training pipelines and applicable Weapons Schools for certification.

Fleet introduction of the AN/ALE-47 CMDS began in Fiscal Year (FY) 96 and deliveries will continue for F/A-18C/D (Lot XVIII through XXI), F/A-18E/F, HH-60H, P-3C, AH-1Z, UH-1Y, MV-22, VH-3D, VH-60N, KC-130J, and SH-60R aircraft. Additionally, in FY01, retrofit began on the following aircraft: F-14B/D, EA-6B, F/A-18C/D (Lot XII through XVII), AV-8, CH-46E, CH-53E, MH-53E, and KC-130F/R/T aircraft.

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LIST OF ACRONYMS

AI	Air Interceptor
AIMD	Aircraft Intermediate Maintenance Department
AMTCS	Aviation Maintenance Training Continuum System
AO	Aviation Ordnanceman
ASE	Aircraft Survivability Equipment
ASL	Aviation Support Logistics
ASPJ	Airborne Self Protection Jammer
AT	Aviation Electronics Technician
BIT	Built-In Test
CASS	Consolidated Automated Support System
CBIT	Continuous Built-In Test
CBT	Computer Based Training
CDU	Control Display Unit
CFA	Cognizant Field Activity
CFE	Contractor Furnished Equipment
CFY	Current Fiscal Year
COTS	Commercial Off the Shelf
CY	Calendar Year
COMLANTFLT	Commander, Atlantic Fleet
COMPACFLT	Commander, Pacific Fleet
CM	Countermeasures
CMC	Commandant of the Marine Corps
CMDS	Countermeasures Dispensing System
CNO	Chief of Naval Operations
DA	Development Activity
DT	Developmental Test
DoD	Department Of Defense
ECR	Electronic Combat Range
EOD	Explosive Ordnance Disposal
EW	Electronic Warfare
EWSSA	Electronic Warfare Software Support Activity
FMS	Foreign Military Sales
FRS	Fleet Readiness Squadron

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LIST OF ACRONYMS

FY	Fiscal Year
GFE	Government Furnished Equipment
IBIT	Initiated Built-In Test
ILSP	Integrated Logistic Support Plan
IMA	Intermediate Maintenance Activity
IPB	Illustrated Parts Breakdown
ITSS	Individual Training Standards System
LORA	Level Of Repair Analysis
LRC	Learning Resource Center
MATMEP	Maintenance Training Management and Evaluation Program
MDF	Mission Data File
MMH/FH	Maintenance Man-Hours per Flight Hour
MOS	Military Occupational Specialty
MPT	Manpower, Personnel, and Training
MRC	Maintenance Requirements Card
MSD	Material Support Date
MTIP	Maintenance Training Improvement Program
MWS	Missile Warning System
NA	Not Applicable
NAMTRA MARUNIT	Naval Aviation Maintenance Training Marine Unit
NAMTRAU	Naval Air Maintenance Training Detachment
NATEC	Naval Aviation Technical Data and Engineering Service Command
NATOPS	Naval Air Training and Operating Procedures Standardization
NAVAIRSYSCOM	Naval Air Systems Command
NAVAIRWARCENACDIV	Naval Air Warfare Center Aircraft Division
NAVAIRWARCENWPNDIV	Naval Air Warfare Center Weapons Division
NAVICP	Navy Inventory Control Point
NEC	Navy Enlisted Classification
NETC	Commander, Naval Education and Training Command
NFO	Naval Flight Officer

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LIST OF ACRONYMS

NOMMP	Naval Ordnance Maintenance Management Program
NSD	Navy Support Date
NTSP	Navy Training System Plan
OJT	On-the-Job Training
OPO	OPNAV Principal Official
OSIP	Operational, Safety, and Improvement Program
OT	Operational Test
PBIT	Power Up Built-In Test
PFY	Previous Fiscal Year
PQS	Personnel Qualification Standards
RF	Radio Frequency
RFOU	Ready For Operational Use
ROC/POE	Required Operational Capabilities/Projected Operational Environment
RWR	Radar Warning Receiver
SAM	Surface-to-Air Missile
SRA	Shop Replaceable Assembly
TA	Training Agency
TFOA	Things Falling Off Aircraft
TMCR	Technical Manual Contract Requirements
TPS	Test Program Set
TSA	Training Support Agency
TTE	Technical Training Equipment
TYCOM	Type Commander
WRA	Weapon Replaceable Assembly

AN/ALE-47 COUNTERMEASURES DISPENSING SYSTEM

PREFACE

This Approved Navy Training System Plan (NTSP), for the AN/ALE-47 has been developed to update the Draft AN/ALE-47 NTSP N88-NTSP-A-50-9001B/D dated May 2002. This document incorporates fleet comments from Chief of Naval Operations, Chief of Naval Education Training, and Commander, Naval Air Force, U. S. Pacific Fleet. The comments are general in nature.

PART I - TECHNICAL PROGRAM DATA

A. NOMENCLATURE-TITLE–PROGRAM

    1. Nomenclature-Title-Acronym. AN/ALE-47 Countermeasures Dispensing System (CMDS)

    2. Program Element. 064270N

B. SECURITY CLASSIFICATION

    1. System Characteristics ....Classified
    2. Capabilities ....Confidential
    3. Functions ....Confidential through Secret

C. MANPOWER, PERSONNEL, AND TRAINING PRINCIPALS

OPNAV Principal Official (OPO) Program Sponsor ....CNO (N780)

OPO Resource Sponsor.. CNO (N780C)

Marine Corps Program Sponsor .... (ASL)

Development Activity (DA) PMA272

Training Agency .... NETC
COMLANTFLT
COMPACFLT
CMC

Training Support Agency (TSA) ....NAVAIR (PMA205)

Manpower and Personnel Mission Sponsor.. CNO (N12)
NAVPER (PERS-4, PERS-404)

Marine Corps Force Structure...MCCDC (C53)

D. SYSTEM DESCRIPTION

1. Operational Uses. The AN/ALE-47 CMDS provides recipient aircraft with a programmable, computer controlled capability for dispensing expendable countermeasures, including flares, chaff, non-programmable expendable jammers, and programmable jammers. The system is designed to, process inputs from on-board Electronic Warfare (EW) sensors and automatically select and dispense the appropriate countermeasures to defeat an identified threat. The purpose of the CMDS is to increase the survivability of F/A-18C/D/E/F, F-14B/D, AV-8, EA-6B, P-3C, KC-130F/J/R/T, MV-22, HH-60H, SH-60R, VH-60N, VH-3D, AH-1Z, UH-1Y, CH-46E, CH-53E, and MH-53E aircraft in multiple threat environments.

Calendar Year 2000 Electronic Warfare Suite Program. The AN/ALE-47 CMDS is included in the Calendar Year (CY) 2000 EW Suite Program that is being implemented to provide improved EW capabilities for F/A-18C/D, F-14D, and AV-8B aircraft. Other EW systems involved in this program include the AN/ALR-67E(V)2 Countermeasures (CM) Receiving Set and the AN/ALQ-165 Airborne Self-Protection Jammer (ASPJ). This suite of hardware and software upgrades is being developed and tested as a block. For the AN/ALE-47 system specifically, the CY2000 EW Suite Program will provide a Mission Data File (MDF) 1067 compatibility update.

2. Foreign Military Sales. The U.S. Air Force is the Department Of Defense (DoD) lead development and procurement agent for the AN/ALE-47. All Foreign Military Sales (FMS) are handled through their respective U.S. counterservice department.

E. DEVELOPMENTAL TEST AND OPERATIONAL TEST.
Developmental Test (DT) for the AN/ALE-47 was successfully concluded in May 1992 using the F/A-18C/D as the test platform. Phase I of the Operational Test (OT) was conducted in August 1992, and Phase II was successfully completed in May 1993.

DT began for the CY2000 EW Suite program in Fiscal Year (FY) 99 and continued through FY01. This testing was conducted at the Electronic Warfare Software Support Activity (EWSSA) and F-14 WSIC at Naval Air Warfare Center Weapons Division (NAVAIRWARCENWPNDIV) Point Mugu, California and the F/A-18 AWL and Electronic Combat Range (ECR) Western Test Range at NAVAIRWARCENWPNDIV China Lake, California. The CY2000 EW Suite OT began in December 2001, on the F-14 Aircraft, and in January 2002 on the F/A-18 and AV-8B aircraft at the ECR Western Test Range at NAVAIRWARCENWPNDIV China Lake. There was no requirement for AN/ALE-47 specific initial training associated with the CY2000 EW Suite Program.

F. EQUIPMENT/SYSTEM/SUBSYSTEM REPLACED.
The AN/ALE-47 is an Acquisition Category (ACAT) III Joint program initiated to develop a common DoD CMDS to replace the AN/ALE-39 (U.S. Navy) and AN/ALE-40 (U.S. Air Force). The AN/ALE-47 improves upon

the 20-plus year old AN/ALE-39 by eliminating Things Falling Off Aircraft (TFOA) safety hazards, significantly improving reliability/maintainability/affordability, adding Built-In Test (BIT) capabilities, and providing enhanced functionality through reprogrammability and smart dispensing. The AN/ALE-39/47 CMDS Operational, Safety, and Improvement Program (OSIP) 06-00 authorized the retrofit of certain platforms to replace the AN/ALE-39 CMDS with the AN/ALE-47 CMDS.

G. DESCRIPTION OF NEW DEVELOPMENT

    1. Functional Description. The AN/ALE-47 CMDS uses state-of-the-art processing technology to perform automatic threat-adaptive dispensing of expendable countermeasures. It is capable of dispensing flares, chaff, Radio Frequency (RF) decoys, and will be able to accommodate future expendables. The Weapon Replaceable Assemblies (WRA) of the AN/ALE-47 system include:

    a. Programmer. The programmer performs all the logic functions necessary to select and execute dispense programs. It interfaces with the Control Display Unit (CDU) or the Digital Control Display Unit (DCDU), the sequencers or digital sequencers, and on-board EW systems. One programmer is installed in each recipient aircraft.

    b. Control Display Unit. The CDU allows the operator to monitor and control CMDS functions including selection of the mode, program, and inhibiting. The F/A-18 and MV-22 platforms utilize existing on-board controllers and indicators vice the CDU. If applicable, one CDU is installed in the cockpit of the host aircraft.

    c. Digital Control Display Unit. The DCDU allows the operator to monitor and control CMDS functions, including selection of mode, program, and inhibiting. The DCDU is used only on platforms into which the AN/ALE-47 has been retrofitted.

    d. Sequencer Switch. The sequencer switch generates and routes firing signals to specific payload locations and maintains magazine inventory. Up to 16 sequencer switches can be installed on each aircraft. Each sequencer switch can interface with one or two dispenser assemblies.

    e. Digital Sequencer Switch. The digital sequencer switch generates and routes firing signals to specific payload locations and maintains the magazine inventory. Up to 16 digital sequencer switches can be installed on each aircraft. Each digital sequencer switch interfaces with one dispenser assembly. The digital sequencer switch is used only on platforms into which the AN/ALE-47 has been retrofitted.

    f. Dispenser Assemblies. The dispenser assembly provides a mounting point for the magazines and transmits a firing signal to stores in the magazine. The Navy uses a variety of

dispensers including the D-56 and D-63. There are one or two dispensers per sequencer that are available in various configurations on-board the host aircraft.

   g. Magazines. The magazine provides for carriage of the countermeasure expendables. The AN/ALE-47 CMDS is compatible with a variety of Navy magazines.

   h. Safety Switch. The safety switch inhibits the dispensing of payloads by interrupting electrical power.

   2. Physical Description. The approximate size and weight of the individual AN/ALE-47 components are as follows:

EQUIPMENT	LENGTH	WIDTH	HEIGHT	WEIGHT
Programmer	5.75 in.	3.75 in.	6.14 in.	4.50 lbs.
CDU	6.80 in.	5.75 in.	3.75 in.	5.00 lbs.
DCDU	4.22 in.	5.675 in.	3.00 in.	2.30 lbs.
Sequencer	6.53 in.	6.57 in.	2.89 in.	3.75 lbs.
Digital Sequencer Switch	6.00 in.	4.00 in.	1.80 in.	1.50 lbs.
Dispenser (D-56 or D-63)	9.83 in.	10.13 in.	6.68 in.	4.00 lbs.
Magazine (MX-11599)	6.36 in.	9.30 in.	7.77 in.	6.00 lbs.
Safety Switch	4.61 in.	3.64 in.	2.55 in.	2.00 lbs.

   3. New Development Introduction. The AN/ALE-47 CMDS began fleet introduction as new production equipment in FY96 for F/A-18C/D (Lot XVIII through XXI), F/A-18E/F, P-3C, KC-130J, MV-22, AH-1Z, UH-1Y, VH-3D, HH-60H, VH-60N, and SH-60R aircraft. A fleet retrofit program also begins in FY01 for F-14B/D, EA-6B, F/A-18C/D (Lot XII through XVII), AV-8, CH-46E, CH-53E, MH-53E, and KC-130F/R/T aircraft. The AN/ALE-47 retrofit program is such that the system can be either internally mounted as stand-alone or fully integrated with other on-board EW and avionics systems. The AN/ALE-47 WRA composition is tailored to the requirements of the host aircraft.

   2. Other Procurement. The U.S. Air Force is the DoD lead development and procurement agent for the AN/ALE-47. All FMS are handled through their respective U.S. counterservice department.

   4. Significant Interfaces. The AN/ALE-47 is capable of interfacing with the host aircraft Radar Warning Receiver (RWR), Missile Warning System (MWS), and on-board jammers via the 1553 electronic data, avionics, and EW mux buses and a full duplex RS-422 serial data link.

5. New Features, Configuration, Or Material. The AN/ALE-47 does not drive technological breakthroughs, but utilizes state-of-the-art hardware and processing technology.

H. CONCEPTS

1. Operational Concept. The AN/ALE-47 CMDS can provide operators with the option of automatic, semi-automatic, or manual dispensing. Control during flight is accomplished by the aircrew in accordance with the host platform Naval Air Training and Operating Procedures Standardization (NATOPS) Manual, secret supplement. The following six modes of operation are available with the AN/ALE-47 CMDS:

MODE	DESCRIPTION
Automatic	System determines appropriate response based on threat environment without aircrew intervention
Semi-Automatic	System determines appropriate response based on threat environment with aircrew initiation
Manual	Aircrew selects and initiates preprogrammed responses with up to six selectable manual programs
Bypass	Aircrew has direct link to the sequencer for dispensing in the event of a programmer or CDU failure (no inventory display while in this mode)
Jettison	System rapidly dispenses all payloads marked as Jettisonable in the MDF (typically this includes all flares)
System BIT	Power Up BIT (PBIT), Continuous BIT (CBIT), and Initiated BIT (IBIT) available

2. Maintenance Concept. Maintenance of the AN/ALE-47 CMDS is performed by organizational, intermediate, and depot level technicians. The dispenser assemblies and magazine are maintained at the organizational and intermediate levels only. The safety switch is an organizational level consumable item. The remaining WRAs are repaired at all three maintenance levels. The AN/USM-636(V) Consolidated Automated Support System (CASS) is used to support the AN/ALE-47 at the intermediate level. The AN/ALE-47 CMDS maintenance plan provides a detailed description of the authorized electronic component repair procedures. The expendables and impulse cartridges associated with the AN/ALE-47 require inspection prior to use, loading, handling, and repackaging at the organizational and intermediate levels. These maintenance tasks are identified/assigned by the Naval Ordnance Maintenance Management Program (NOMMP) OPNAVINST 8000.16 Volume 2, Section 2. Procedures and inspection criteria for particular configurations are added to appropriate Weapons Assembly Manuals prior to fleet introduction of decoys and devices.

a. **Organizational Level.** Organizational level maintenance is performed by the operating units on a day-to-day basis in support of their own operations. WRAs are removed and replaced at the organizational level of maintenance and sent to supply for disposition. Repair of the magazine block at the organizational level consists of removal and replacement of the four retaining studs and rings. The breechplate can be tested at the organizational level prior to disposal if conditions warrant. The testing procedures are contained in NAVAIR 11-140-7 Airborne Weapons Assembly Manual and applicable Loading Weapons Systems Manual. No repairs of the breechplate are authorized.

(1) **Electronics.** Assigned organizational level personnel perform periodic inspections, operational checks, and scheduled corrosion control in accordance with the applicable Maintenance Requirements Cards (MRC). Aviation Electronics Technicians (ATs) use system BIT extensively for primary fault isolation to the defective WRA. The AN/ALE-47 CMDS test set, AN/ALM-286 Flight Line Payload Simulator, enhances the BIT test by allowing payload encoding and stray voltage tests. Repair actions are limited to removal and replacement of WRAs using standard hand tools. Faulty WRAs are forwarded to the next authorized level of repair, which in most cases is the designated Aircraft Intermediate Maintenance Department (AIMD).

(2) **Ordnance.** Organizational maintenance for AN/ALE-47 associated expendables and impulse cartridges involves inspecting, loading, arming, de-arming, downloading, and reporting discrepancies. Certified squadron-based Aviation Ordnanceman (AO) personnel conduct preflight and postflight inspections which consists of performing visual examination of device cases for dents, cracks, corrosion, illegible or incorrect markings, and compliance with pertinent Notices of Ammunition Reclassifications and technical directives. Any devices failing these inspections are forwarded to the intermediate maintenance level for action. Loading and unloading of AN/ALE-47 magazines is done in accordance with applicable aircraft loading manuals and Airborne Weapons Assembly Manual, NAVAIR 11-140-7.

b. **Intermediate Level**

(1) **Electronics.** Intermediate level electronics maintenance is performed by designated ATs using the AN/USM-636(V) CASS, applicable Test Program Sets (TPS), and special tools. Corrective maintenance consists of fault verification and isolation to the Shop Replaceable Assembly (SRA) level. WRA repair is accomplished by replacement of defective SRAs, followed by verification of corrective action. The extent of troubleshooting and repair of faulty SRAs is in accordance with the Level Of Repair Analysis (LORA) and the AN/ALE-47 CMDS maintenance plan.

(2) **Ordnance.** The Weapons Departments (shipboard, Naval Air Station, and Marine Aviation Logistics Squadron) of the Intermediate Maintenance Activities (IMA) receive expendable countermeasure devices from the appropriate issuing activities. Ordnance personnel perform routine upkeep maintenance actions such as receipt, handling, storage, and issue; packaging and unpackaging; visual inspection for external damage to cases and illegible or

incorrect markings; minor cleaning and corrosion procedures; and compliance with pertinent technical directives. The dispensers are removed, replaced, and repaired at the intermediate level of maintenance. Other WRAs are removed and replaced at the intermediate level and sent to the designated Depot for repair. Devices requiring maintenance that exceeds the capabilities of the fleet intermediate level will have the condition codes reclassified and be disposed of in accordance with existing directives.

      c. Depot. Depot level maintenance consists of repair or disposition of electronic assemblies and sub-assemblies that are beyond the capability of the intermediate level. The Warner-Robins Air Logistics Center, Warner-Robins Air Force Base, Georgia, is the designated primary depot level maintenance facility for electronic components and BAE Aerospace Systems, Austin, Texas, for the DCDU and DDS components of the AN/ALE-47 CMDS. No depot level actions are authorized for the dispenser assemblies, magazine, safety switch, or associated expendables.

      d. Interim Maintenance. The AN/ALE-47 CMDS is warranted against materials and workmanship failures due to manufacturing or design defects. Organizational level technical assistance is provided by Naval Aviation Technical Data and Engineering Service Command (NATEC) representatives for the host platforms with which they are currently associated.

    3. Manning Concept. The existing host platform billet structures are being used to operate and maintain the AN/ALE-47. The AN/ALE-47 system itself does not drive manning requirements. The tasks and skills required to operate and maintain the system are factored into the aggregate requirements of all like systems aboard the host aircraft.

      a. Aircrew. As determined by type aircraft, either the pilot, a Naval Flight Officer (NFO), or designated enlisted aircrewman will monitor the AN/ALE-47 system in flight. Aircrew requirements are driven by the total number of aircraft assigned to the squadron, the number of positions to be manned, and the crew seat ratio as stated in the host platform Required Operational Capabilities and Projected Operational Environment (ROC/POE). The introduction of the AN/ALE-47 does not change existing aircrew requirements. Refer to the applicable aircraft NTSP for specific manning requirements.

      b. Organizational Level. The AN/ALE-47 system is supported at the organizational level by Navy ATs and AOs with the appropriate aircraft specific Navy Enlisted Classification (NEC) and related Marine Corps personnel with the appropriate Military Occupational Specialty (MOS). The current Maintenance Man-Hours per Flight Hour (MMH/FH) for the AN/ALE-47 at the organizational level is 0.16 hours, which is a decrease of 0.002 compared to the AN/ALE-39. Therefore, maintenance manpower requirements have remained unchanged due to the negligible decrease in workload required to support the AN/ALE-47. A general listing of related NECs and MOSs is provided within the Training Concept section of this NTSP. For detailed information on expendables related and host

platform manning requirements, refer to the Airborne Expendable Countermeasures NTSP, N78-A-50-0109, and applicable aircraft NTSPs respectively.

c. Intermediate Level. Intermediate level electronic component maintenance is performed by qualified CASS station operators/maintainers. CASS operators responsible for repair of the AN/ALE-47 are not dedicated exclusively to the AN/ALE-47 system, but are responsible for repair of all avionics systems assigned to CASS. As such, all intermediate level maintenance billets required to support the AN/ALE-47 are planned and provided for via the CASS program. These requirements are addressed in the CASS NTSP, N88-A-50-8515 series. Associated expendables do not alter current intermediate level ordnance manning requirements. Related requirements are addressed in the Airborne Expendable Countermeasures NTSP, N78-A-50-0109.

4. Training Concept. The intent of the AN/ALE-47 training program is to provide proficient aircrew and maintenance personnel at system introduction and beyond. Aircrew training is accomplished at the host platform Fleet Readiness Squadrons (FRS). Organizational level maintenance and ordnance training is provided by the on-site Naval Air Maintenance Training Units (NAMTRAU), Naval Aviation Maintenance Training Marine Unit (NAMTRA MARUNIT), or training squadrons associated with the host platform. Additional ordnance training is provided by various Weapons Schools. Training for intermediate level Aviation Electronics Technician (AT) personnel is encompassed in the CASS training track provided by applicable NAMTRAUs.

a. Initial Training. Initial training for the AN/ALE-47 CMDS is complete. There is no requirement for AN/ALE-47 specific initial training for the CY2000 EW Suite Program.

b. Follow-on Training

(1) Aircrew. AN/ALE-47 aircrew training is integrated into the training syllabus of the host aircraft. Instruction on the operation of the AN/ALE-47 is provided within a platform course that covers all on-board avionics. As such, this training is an adjunct to the existing aircrew training and does not increase or decrease the projected student throughput. Therefore, instructor and instructor support billets remain unchanged by the introduction of the AN/ALE-47 CMDS. The host platforms have responsibility for meeting all AN/ALE-47 aircrew training requirements, including instructor billets, training facilities, curriculum updates, and simulator modifications. The applicable aircraft NTSP should be referenced for more complete program details.

(2) Organizational Level. The required AN/ALE-47 course material is integrated within existing courses and does not impact student loading. There is no requirement to adjust the instructor or instructor support billeting at the training activities due to the introduction of the AN/ALE-47. The host platforms are responsible for providing organizational level training, including any differences training required. The aircraft NTSPs should be

referenced for more complete program details. An Airborne Countermeasures and Associated Impulse Cartridges safety lesson has been developed and will be incorporated into certain existing ordnance courses. The Airborne Expendable Countermeasures NTSP, N78-A-50-0109, should be referenced for more information on this safety lesson. The following depicts affected organizational level training tracks:

AVIATION ELECTRONICS TECHNICIAN ORGANIZATIONAL LEVEL TRAINING			
NEC/MOS	**TRAINING TRACK**	**TRACK TITLE**	**LOCATION**
AT-8342 USMC 6317	D/E-102-0630	F/A-18 Integrated Electronic Systems Organizational Maintenance	NAMTRAUs Oceana and Lemoore
AT-8341	E-102-0624	F/A-18E/F Career Avionics Systems Organizational Maintenance	NAMTRAU Lemoore
AT-8845	D-102-1624	F-14A/B Initial Avionics Systems Organizational Maintenance	NAMTRAU Oceana
AT-8345	D-102-1623	F-14A/B Career Avionics Systems Organizational Maintenance	NAMTRAU Oceana
AT-8835	D-102-1625	F-14D Initial Electronics Systems Organizational Maintenance	NAMTRAU Oceana
AT-8335	D-102-1630	F-14D Career Electronics Systems Organizational Maintenance	NAMTRAU Oceana
AT-8832 USMC 6386	E-102-1820	EA-6B Initial ECM Organizational Maintenance	NAMTRAU Whidbey Island
AT-8332 USMC 6386	E-102-1824	EA-6B ICAP Integrated ECM Organizational Maintenance	NAMTRAU Whidbey Island
USMC 6315	M-102-0122	AV-8B CNI/ECM System Organizational Maintenance	NAMTRA MARUNIT Cherry Point

NEC/MOS	TRAINING TRACK	TRACK TITLE	LOCATION
AT-8819	D-102-1029	P-3C Initial Weapon System Organizational Maintenance	VP-30
AT-8319	D-102-1132	P-3C Career Weapon System Organizational Maintenance	VP-30
AT-8319	D-102-1137	P-3C Update III Weapon System Technician Difference Organizational Maintenance	VP-30
AT-8263	D-050-1124	P-3C In-flight Maintenance Technician Update II	VP-30
USMC 6316	M-102-0451	KC-130 COMM/NAV Systems Technician	NAMTRA MARUNIT Cherry Point
AT-8878	D/E-102-0823	SH-60F/HH-60H Electronic Systems Organizational Maintenance (Initial)	NAMTRAUs Jacksonville and North Island
AT-8378	D/E-102-0822	SH-60F/HH-60H Electronic Systems Organizational Maintenance (Career)	NAMTRAUs Jacksonville and North Island
AT-8303	D-102-2725	CH/MH-53 COMM/NAV/IDENT Systems	NAMTRAU Norfolk
USMC 6323	M-102-2731	CH-53E Communications/Electrical Systems Organizational Maintenance	NAMTRA MARUNIT New River
USMC 6323	M-102-2764	CH-53A/D Communications/Electrical Systems Organizational Maintenance	NAMTRA MARUNIT New River
USMC 6322	M-102-2424	CH-46 COMM/NAV/IDENT Systems Organizational Maintenance	NAMTRA MARUNIT New River
AT-8377	D-102-0521	H-3 Weapons Systems	NAMTRAU

AVIATION ELECTRONICS TECHNICIAN ORGANIZATIONAL LEVEL TRAINING

AVIATION ELECTRONICS TECHNICIAN ORGANIZATIONAL LEVEL TRAINING			
NEC/MOS	**TRAINING TRACK**	**TRACK TITLE**	**LOCATION**
		Maintenance	Jacksonville
USMC 6324	M-102-2024	H-1 Comm/Nav/Ident Systems Organizational Maintenance	NAMTRA MARUNIT Camp Pendleton
USMC 6325	M-102-XXXX	MV-22 Comm/Nav/Elec/Weapons Systems Technician	NAMTRA MARUNIT New River

AVIATION ORDNANCEMAN ORGANIZATIONAL LEVEL TRAINING			
NEC/MOS	**TRAINING TRACK**	**TRACK TITLE**	**LOCATION**
AO-8342 USMC 6315	D/E-646-0641	F/A-18 Armament Systems Maintenance, Organizational Level	NAMTRAUs Oceana and Lemoore
AO-8342 USMC 6315	D/E-646-0653	F/A-18 Conventional Weapons	NAMTRAUs Oceana and Lemoore
AO-8341	E-646-0644	F/A-18E/F Armament Systems Organizational Maintenance	NAMTRAU Lemoore
AO-8845	D-646-1647	F-14A/B Initial Armament Systems Organizational Maintenance	NAMTRAU Oceana
AO-8345	D-646-1641	F-14 Armament Systems (Career) Organizational Maintenance	NAMTRAU Oceana
AO-8332 USMC 6531	E-646-1840	EA-6B Armament Systems Organizational Maintenance	NAMTRAU Whidbey Island
USMC 6531	M-646-0143	AV-8B Armament Ordnance Systems Maintenance	NAMTRA MARUNIT Cherry Point

AVIATION ORDNANCEMAN ORGANIZATIONAL LEVEL TRAINING			
NEC/MOS	**TRAINING TRACK**	**TRACK TITLE**	**LOCATION**
AO-8319	D-646-1042	P-3C Initial Armament/Ordnance Systems Organizational Maintenance	VP-30
AO-8319	D-646-1140	P-3C Armament Systems Integrated Organizational Maintenance	VP-30
USMC 6531	M-646-2044	Rotary Wing Armament Systems Maintenance	NAMTRA MARUNIT Camp Pendleton
AO-8378	D/E-646-0840	H-60 Armament and Related Systems Organizational Maintenance	NAMTRAUs Jacksonville and North Island
USMC 6531	M-646-2044	H-1 Armament Repair Integrated Organizational Maintenance	NAMTRA MARUNIT Camp Pendleton
USMC 6536	M-646-XXXX	MV-22 Armament and Related Systems Maintenance	NAMTRA MARUNIT New River

(3) Intermediate Level. There are no specific intermediate level training requirements driven by the AN/ALE-47 program. With the implementation of the AN/USM-636(V) CASS program, the Chief of Naval Operations (CNO) directed that all system avionics supported by the CASS station will be encompassed within the CASS training track. Therefore, intermediate level maintenance training for the AN/ALE-47 electronic components falls under the coordination and control of the CASS program. Intermediate level training for AN/ALE-47 related expendables and impulse cartridges is not driven by system requirements. These requirements are addressed for the ordnance community as a whole not by individual systems. The following tables display related intermediate level training tracks. The AN/ALE-47 system has no impact on intermediate level student throughput or instructor requirements. The CASS NTSP, N88-A-50-8515 series, and Airborne Expendable Countermeasures NTSP, N-78-A-50-0109, should be referenced for more complete program details.

AVIATION ELECTRONICS TECHNICIAN INTERMEDIATE LEVEL TRAINING			
NEC/MOS	TRAINING TRACK	TRACK TITLE	LOCATION
AT-6704 USMC 6467	D/E-198-3044	CASS Test Station Operator/ Maintainer	NAMTRAUs Oceana and Miramar
AVIATION ORDNANCEMAN INTERMEDIATE LEVEL TRAINING			
AO-6801	D/E-646-7007	General Shipboard/NAS Weapons Department AVORD Maintenance	NAMTRAUs Norfolk and North Island
USMC 6541	M-646-7026	Aircraft Ordnance Technician, IMA	NAMTRA MARUNIT Cherry Point

(4) Additional Training for Ordnance Handling. In addition to the platform specific organizational level courses listed above, other general ordnance training is applicable to the AN/ALE-47 program. Modifications to existing Explosive Ordnance Disposal (EOD) training materials have been made to accommodate AN/ALE-47 CMDS requirements. Also, some On-the-Job Training (OJT) is conducted at the squadron level on AN/ALE-47 magazine build-ups.

I. ON BOARD (IN-SERVICE) TRAINING

1. Proficiency or Other Training Organic to the New Development

a. Maintenance Training Improvement Program. Current planning is to adopt the Aviation Maintenance Training Continuum System (AMTCS) concepts to replace Maintenance Training Improvement Program (MTIP). AMTCS is scheduled to begin full implementation for fleet deployment in FY02.

b. Aviation Maintenance Training Continuum System. AMTCS will provide career path training to the Sailor or Marine from their initial service entry to the end of their military career. AMTCS concepts will provide an integrated system that will satisfy the training and administrative requirements of both the individual and the organization. The benefits will be manifested in the increased effectiveness of the technicians and the increased efficiencies of the management of the training business process. Where appropriate, capitalizing on technological advances and integrating systems and processes can provide the right amount of training at the right time, thus meeting the CNO's mandated "just-in-time" training approach.

Technology investments enable the development of several state-of-the-art training and administrative tools: Interactive Multimedia Instruction (IMI) for the technicians in the Fleet in the form of Interactive Courseware (ICW) with Computer Managed Instruction (CMI) and Computer Aided Instruction (CAI) for the schoolhouse.

Included in the AMTCS development effort is the Aviation Maintenance Training Continuum System - Software Module, which provides testing [Test and Evaluation], recording [Electronic Certification Qualification Records], and a Feedback system. The core functionality of these AMTCS tools are based and designed around the actual maintenance-related tasks the technicians perform, and the tasks are stored and maintained in a Master Task List data bank. These tools are procured and fielded with appropriate Commercial-Off-The-Shelf (COTS) hardware and software, i.e., Fleet Training Devices - Laptops, PCs, Electronic Classrooms, Learning Resource Centers (LRC), operating software, and network software and hardware.

Upon receipt of direction from OPNAV (N789H), AMTCS concepts are to be implemented and the new tools integrated into the daily training environment of all participating aviation activities and supporting elements. AMTCS will serve as the standard training system for aviation maintenance training within the Navy and Marine Corps, and is planned to supersede the existing MTIP and Maintenance Training Management and Evaluation Program (MATMEP) programs.

2. Personnel Qualification Standards. Aircrew Personnel Qualification Standards (PQS) requirements have been updated to reflect changes required by introduction of the AN/ALE-47.

3. Other On Board/In-Service Training Packages

(a) Marine Training Management Evaluation Program. Marine Corps on-board training is based on the current series of MCO P4790.12, Individual Training Standards System (ITSS) and MATMEP. This program is designed to meet Marine Corps, as well as Navy OPNAVINST 4790.2 series, maintenance training requirements. It is a performance-based, standardized, level-progressive, documentable, training management and evaluation program. It identifies and prioritizes task inventories by MOS through a front-end analysis process that identifies task, skill, and knowledge requirements of each MOS. MTIP questions coupled to MATMEP tasks will help identify training deficiencies that can be addressed with remedial training. (MATMEP, is planned to be replaced by AMTCS).

(b) Computer Based Training Programs. Several Computer Based Training (CBT) programs addressing the AN/ALE-47 system have been, or are being, developed to support aircrew and/or organizational level maintenance training. The following table provides a list and brief description of known CBT programs:

CBT PROGRAM	DESCRIPTION
Aircraft Survivability Equipment (ASE) version 2.0	Aircrew CBT program on CD-ROM media for "Low and Slow" aircraft squadrons. Distribution took place in 2nd quarter FY00.
HH-60H Platform Maintenance	Maintenance CBT program for total platform, including AN/ALE-47. Development was completed in 4th quarter FY00.
F-14 AN/ALE-47 Retrofit	Aircrew and maintenance CBT program planned for delivery to the VF-101 FRS and NAMTRAU Oceana. Development was completed in FY01.
EA-6B AN/ALE-47 Retrofit	Aircrew CBT program planned was delivered to the VAQ-129 FRS Student Learning Center in FY01.

(c) **Program Office (PMA272J) Training Initiatives.** The AN/ALE-47 Program Office is taking proactive steps to increase system training availability by sponsoring several AN/ALE-47 training initiatives. The Program Office developed and conducted an operator/maintainer training seminar in August 2000 for the NATEC personnel who support the AN/ALE-47. In addition, a system maintenance video and User's Guide with platform specific appendices has been produced for fleet use. The program is also currently updating system software (Block Cycle One) to add a training mode capability.

J. LOGISTICS

1. Manufacturers. BAE Aerospace Systems in Austin, Texas produces the Programmer, Sequencer Switch, and Safety Switch. The Naval Air Warfare Center Aircraft Division (NAVAIRWARCENCACDIV) Crane, Indiana manufactures the Dispenser and Magazine.

2. Program Documentation. The current Joint Integrated Logistics Support Plan (ILSP) was approved in August 1992.

3. Technical Data Plan. Navy technical manuals for the organizational and intermediate maintenance levels were prepared in accordance with Technical Manual Contract Requirements (TMCR) 208-87. Organizational level source data was provided to the aircraft manufacturers and Cognizant Field Activities (CFA) for use in updating existing organizational level manuals and training materials. AN/ALE-47 specific technical manuals have been distributed, and can be accessed via the NATEC website (http://www.natec.navy.mil). The following technical data items have been developed for the AN/ALE-47 CMDS:

TITLE	DOCUMENT NUMBER
AN/ALE-47 Maintenance Plan	AVMP-1173B
AN/ALE-47 Intermediate Level Maintenance Manual with Illustrated Parts Breakdown (IPB)	NAVAIR16-30ALE47-1
AN/ALE-47 Platform Source Data	JAX/OSD AN/ALE-47/1

4. Test Sets, Tools, and Test Equipment. For organizational level support of the AN/ALE-47 system, there is a requirement for the Countermeasures Chaff Dispensing Test Set Group, AN/ALM-286. The following support equipment and special tools are required for intermediate level support:

EQUIPMENT	PART NUMBER
Interconnecting Box/J-6011/ALE-47(V)	3463AS100-001
TPS ID Self Test	3463AS1100-001
TPS CASS Sequencer	3463AS1200-001
Interface Device	3463AS300-002
TPS CASS C-12171/A CDU	3463AS1400-001
TPS CASS CD-45/ALE-47 Programmer	3463AS1300-001
Shop Accessories Set	3463AS5000-001

5. Repair Parts. The Warner-Robins Air Logistics Center is the primary inventory control agency for common Air Force and Navy items. The Navy Inventory Control Point (NAVICP), Mechanicsburg Pennsylvania, is the primary inventory control agency for Navy peculiar items and the secondary inventory control agency for Air Force and Navy common items. The Material Support Date (MSD) was achieved in 4th quarter FY98 for all AN/ALE-47 WRAs except the DCDU, DSS, and D-63 dispenser. MSD for these WRAs was achieved reached during FY01. The Navy Support Date (NSD) was achieved in 4th quarter FY99 for all AN/ALE-47 WRAs except the DCDU, DSS, and D-63 dispenser. NSD for the remaining WRAs was 1st quarter FY02.

K. SCHEDULES

1. Schedule of Events

a. Delivery Schedule. The following schedule depicts the current proposed plan of deliveries for AN/ALE-47 production systems. Upon delivery of the AN/ALE-47 to the fleet, the Type Commanders (TYCOM) have control of asset distribution.

	Prior FYs	FY01	FY02	FY03	FY04	FY05	Out Years	Total
F/A-18C/D (Lot 18 – 21)	84	0	0	0	0	0	0	84
F/A-18E/F	32	30	36	42	48	48	312	548
HH-60H	48	0	0	0	0	0	0	48
P-3 (AIP)	34	9	0	0	0	0	0	43
AH-1Z	0	0	0	0	6	12	177	195
UH-1Y	0	0	0	5	12	12	65	94
MV-22	14	10	16	20	27	30	53	170
VH-3D/VH-60N	11	0	0	0	0	0	0	11
KC-130J	5	5	5	5	5	5	21	51
SH-60R	0	0	0	0	6	6	229	241
Totals	228	54	57	72	104	113	857	1485

b. Retrofit Installation Schedule. In addition to the delivery schedule for AN/ALE-47 production systems, the following schedule displays the current program planning for retrofit installations:

	FY01	FY02	FY03	FY04	FY05	Out Years	Total
F-14B/D	77	42	0	0	0	0	119
EA-6B	2	60	68	0	0	0	130
F/A-18C/D (Lot 12 - 17)	1	12	28	64	64	203	372
AV-8	0	0	4	32	33	82	151
CH-46E	0	0	0	0	21	116	137
CH-53E	0	12	32	32	58	25	159
MH-53E	0	0	13	13	19	0	45
KC-130F	0	0	0	0	0	8	8
KC-130R	0	0	0	0	0	8	8

	FY01	FY02	FY03	FY04	FY05	Out Years	Total
KC-130T	0	0	0	0	0	8	8
Totals	80	126	145	141	195	450	1137

c. Ready For Operational Use Schedule. The AN/ALE-47 CMDS is Ready For Operational Use (RFOU) upon installation.

d. Time Required to Install at Operational Sites. The specific time required for retrofit installation is aircraft dependent, however, retrofits conducted at the squadron level take ten hours or less. All other retrofit installations will be conducted at the depot level.

e. Technical Training Equipment Delivery Schedule. There are no Technical Training Equipment Delivery (TTE) requirements specific to the AN/ALE-47 program. Each host platform is responsible for establishing the most effective use of training equipment to support their aircrew and organizational level training pipelines. Similarly, the CASS program executes all training requirements for the intermediate level. The CASS program requires no AN/ALE-47 assets to conduct training.

L. GOVERNMENT-FURNISHED EQUIPMENT AND CONTRACTOR-FURNISHED EQUIPMENT TRAINING REQUIREMENTS. Not Applicable (NA)

M. RELATED NTSPS AND OTHER APPLICABLE DOCUMENTS

DOCUMENT OR NTSP TITLE	DOCUMENT OR NTSP NUMBER	PDA CODE	STATUS
AN/USM-636(V) Consolidated Automated Support System (CASS)	N88-NTSP-A-50-8515C/A	PMA260	Approved Jan 02
Airborne Expendable Countermeasures	N78-NTSP-A-50-0109/A	PMA272	Approved Nov 01
F-14A/B/D Aircraft	N88-NTSP-A-50-8511C/A	PMA241	Approved Mar 01
F/A-18 Weapon System	N88-NTSP-A-50-7703H/A	PMA265	Approved Jan 02

DOCUMENT OR NTSP TITLE	DOCUMENT OR NTSP NUMBER	PDA CODE	STATUS
EA-6B ICAP II And III	N88-NTSP-A-50-7904D/A	PMA234	Approved Apr 01
T/AV-8B Harrier II Weapon System	N88-NTSP-A-50-8201D/A	PMA257	Approved Oct 01
HH-60H Helicopter Strike Rescue/Special Warfare Support Helicopter	N88-NTSP-A-50-8741A/A	PMA266	Approved Dec 98
CH-53D & CH-53E Aircraft	N88-NTSP-A-50-7604G/A	PMA261	Approved Apr 01
MH-53E Helicopter	N88-NTSP-A-50-8417DA	PMA261	Approved Mar 01
H-46 Helicopter	N88-A-50-9409A	PMA226	Approved Jun 01
P-3C Update II.5/III and ASUW Improvement Program	N88-NTSP-A-50-8112C/D	PMA290	Draft Aug 01
MV-22A Aircraft Joint Training system Plan	N88-NTSP-A-50-8412D	PMA275	Draft Nov 00
H-1 Upgrades Program (AH-1Z and UH-1Y	N88-NTSP-A-50-9602A	PMA276	Approved Jan 02

PART II - BILLET AND PERSONNEL REQUIREMENTS

The following elements are not affected by the AN/ALE-47 Program and, therefore, are not included in Part II of this NTSP:

II.A.   Billet Requirements

   II.A.1.b.   Billets Required for Operational and Fleet Support Activities

   II.A.1.c.   Total Billets Required for Operational and Fleet Support Activities

   II.A.2.a.   Operational and Fleet Support Activity Deactivation Schedule

   II.A.2.b.   Billets to be Deleted in Operational and Fleet Support Activities

   II.A.2.c.   Total Billets to be Deleted in Operational and Fleet Support Activities

   II.A.3.   Training Activities Instructor and Support Billet Requirements

   II.A.4.   Chargeable Student Billet Requirements

   II.A.5.   Annual Incremental and Cumulative Billets

II.B.   Personnel Requirements

   II.B.1.   Annual Training Input Requirements

Note: The nature of the AN/ALE-47 program is such that no manpower or training resources are dedicated specifically to the program. The individual platform (various), CASS (N88-A-50-8515 series), or Airborne Expendable Countermeasures (N78-A-50-0109) NTSPs should be referenced to obtain detailed billet and student requirements. These documents will remain the authority for all AN/ALE-47 manpower and training requirements. Therefore, the above elements are not applicable to the AN/ALE-47 NTSP and have not been included:

PART II - BILLET AND PERSONNEL REQUIREMENTS

II.A. BILLET REQUIREMENTS

II.A.1.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY ACTIVATION SCHEDULE

SOURCE: PMA272   **DATE:** 1/1/02

ACTIVITY, UIC	PFYs	FY02	FY03	FY04	FY05	FY06*
F/A-18C/D (Lot 18 –21)	84	0	0	0	0	0
F/A-18E/F	62	36	42	48	48	312
HH-60H	48	0	0	0	0	0
P-3 (AIP)	43	0	0	0	0	0
AH-1Z	0	0	0	6	12	177
UH-1Y	0	0	5	12	12	65
MV-22	24	16	20	27	30	53
VH-3/VH-60N	11	0	0	0	0	0
KC-130J	10	5	5	5	5	21
SH-60R	0	0	0	6	6	229
SUBTOTALS:	**282**	**57**	**72**	**104**	**113**	**857**
RETROFITS						
F-14B/D	77	42	0	0	0	0
EA-6B	2	60	68	0	0	0
F/A-18C/D (Lot 12 – 17)	1	12	28	64	64	203
AV-8	0	0	4	32	33	82
CH-46E	0	0	0	0	21	116
CH-53E	0	12	32	32	58	25
MH-53D	0	0	13	13	19	0
KC-130F	0	0	0	0	0	8
KC-130R	0	0	0	0	0	8
KC-130T	0	0	0	0	0	8
SUBTOTALS:	**80**	**126**	**145**	**141**	**195**	**450**
GRAND TOTAL:	**362**	**183**	**217**	**245**	**308**	**1307**

*The Figures in FY06 include all out year deliveries.

PART III - TRAINING REQUIREMENTS

The following elements are not affected by the AN/ALE-47 Program and, therefore, are not included in Part III of this NTSP:

III.A.1. Initial Training Requirements

III.A.2. Follow-on Training

   III.A.2.a. Existing Courses

   III.A.2.b. Planned Courses

   III.A.2.c. Unique Courses

III.A.3. Existing Training Phased Out

Note: The Training Tracks and student throughput are included in the appropriate aircraft NTSPs for Organizational level and in the CASS NTSP for intermediate level.

PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS

The following elements are not affected by the AN/ALE-47 Program and, therefore, are not included in Part IV of this NTSP:

IV.A.   Training Hardware

    IV.A.1.   TTE / GPTE / SPTE / ST / GPETE / SPETE

    IV.A.2.   Training Devices

IV.B.   Courseware Requirements

    IV.B.1.   Training Services

    IV.B.2.   Curricula Materials and Training Aids

    IV.B.3.   Technical Manuals

IV.C.   Facility Requirements

    IV.C.1.   Facility Requirements Summary (Space/Support) by Activity

    IV.C.2.   Facility Requirements Detailed by Activity and Course

    IV.C.3.   Facility Project Summary by Program

Note: The courses and training support equipment are included in the appropriate aircraft NTSPs for Organizational level and in the CASS NTSP for intermediate level.

PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS

The following elements are not affected by the AN/ALE-47 Program and, therefore, are not included in Part IV of this NTSP:

IV.A.   Training Hardware

   IV.A.1.   TTE / GPTE / SPTE / ST / GPETE / SPETE

   IV.A.2.   Training Devices

IV.B.   Courseware Requirements

   IV.B.1.   Training Services

   IV.B.2.   Curricula Materials and Training Aids

   IV.B.3.   Technical Manuals

IV.C.   Facility Requirements

   IV.C.1.   Facility Requirements Summary (Space/Support) by Activity

   IV.C.2.   Facility Requirements Detailed by Activity and Course

   IV.C.3.   Facility Project Summary by Program

Note: The courses and training support equipment are included in the appropriate aircraft NTSPs for Organizational level and in the CASS NTSP for intermediate level.

COG CODE	MPT MILESTONES	DATE	STATUS
TSA	Began AN/ALE-47 Initial Training	FY92	Completed
DA	Began Developmental Testing	FY92	Completed
DA	Began Operational Testing	FY92	Completed
DA	Began analysis of manpower, personnel, and training requirements Awarded Initial Contract	FY93	Completed
DCNO (MPT)	Approve and Promulgate NTSP	FY94	Completed
DA	Production Contract Awarded	FY95	Completed
DA	Achieved MSD	FY98	Completed
DA	Achieved NSD	FY99	Completed
DCNO (MPT)	Update NTSP to Draft and distribute for Fleet review	Mar 02	Completed
DA	Forward Proposed NTSP to OPNAV for Approval	Jun 02	Completed

DECISION ITEM OR ACTION REQUIRED	COMMAND ACTION	DUE DATE	STATUS

No decisions pending

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